1Fw

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.	:	10/579,569	Confirmation No. 5499
Applicant(s)	:	Carsten PABST et al.	
Filed	:	May 17, 2006	
TC/A.U.	:	3746	
Docket No.	:	R.306941	
Customer No.	:	02119	

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Date: January 29, 2008

INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR 1.97(b), AND EXPLANATION OF THE RELEVANCE OF THE CITED PRIOR ART

Sir:

The undersigned hereby requests that the prior art cited on the attached prior art statement be placed of record in the application file and be considered by the examiner.

This citation of prior art is made under 37 CFR 1.97(b), since it is being filed before the mailing date of the First Office Action.

The relevance of the prior art cited on the attached form PTO/SB/08a is as follows:

DE 41 38 313

The invention shows a positive-displacement type pump system, such as a fixed-cylinder type radial piston pump system, includes a common pump housing formed with a plurality of cylinders, and a plurality of pistons slidably received in the respective cylinders and cooperating therewith to form a plurality of pump units. A first throttle valve is disposed in a first suction passage of a first group of the pump units for operating a first actuator, for adjusting the flow rate of a working fluid to be supplied to the these pump units. A second throttle valve is disposed in a second suction passage of a second group of the pump units for operating a second actuator, for adjusting the flow rate of the working fluid to be supplied to the pump units of the second group independently from those of the first group. The pump units of the first and second groups can thus be individually adjusted in terms of the respective delivery volumes.

JP 6-336973

The purpose of this invention is to mix two kinds of fluids at a specific ratio without pulsation by making the composite waveform of the respective flow waveforms in two pumps constant, and determining the cam shape for one other pump in such a way that the flow waveform in this pump satisfies a specific condition. A nonpulsating pump 1 is provided with a first and a second pump on the suction side and a third pump on the discharge side, and the respective plungers 5-7 of these pumps are driven in reciprocating motion by a rotary shaft 21 through the respective cam mechanisms 18-20. In this case, the suction- discharge flow waveforms q1, q2 of the first and second pumps 2, 3 are respectively set to the specific value, and the composite waveform q3 thereof is set to Aepsilon0sintheta, where A is plunger cross-sectional area, epsilon is eccentric quantity, and alpha is a cam rotating angle. The shape of the cam 49 of the third cam mechanism 20 is then determined to satisfy q4=Aepsilon0(1/pi-sintheta) when the suction-discharge flow waveform q4 of the third pump 4 is 0<=theta<=pi and to satisfy q4=Atheta0 (1/theta) at the time of pi<theta<2pi.

JP 2002-517354

The invention relates to a hydraulic braking system for automobiles having an electrohydraulic brake servo unit comprising a piston pump. In order to reduce pressure pulsations on a suction side of the multiple-piston pump, the invention provides for a multiple-piston pump that is embodied, for instance, as a six-piston pump with stepped pistons (68) that are alternately driven with 30 DEG and 90 DEG phase shifting in relation to each other. The drive phase shift of the stepped pistons (68) is chosen in such a way that suction volumetric flows have a even phase shift causing the entire suction volumetric flow of the multiple-piston pump to exhibit reduced pressure pulsation amplitude thereby diminishing the effects on the main brake cylinder.

JP 28-254

No abstract available for this utility model. It is cited to show state of the art.

Examination of this application is respectfully requested.

Respectfully submitted,

Ronald E. Greigg
Registration No. 31,517
Attorney for Applicant(s)

GREIGG & GREIGG, P.L.L.C.
1423 Powhatan Street
Suite One
Alexandria, VA 22314

Telephone: 703-838-5500
Facsimile: 703-838-5554

Customer No. 02119

REG/qmh
Enclosures
J:\Bosch\R306941\IDS 1.97(b).wpd